



March 26, 2008

Charles L.A. Terreni  
Chief Clerk and Administrator  
South Carolina Public Service Commission  
Post Office Drawer 11649  
Columbia, South Carolina 29211

Re: Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.  
Power Plant Performance Report (February 2008)  
Docket No. 2006-224-E

Dear Mr. Terreni:

Enclosed are an original and one copy of the Power Plant Performance Report for Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. for the month of February 2008.

Sincerely,

*Len S. Anthony (by dhs)*  
Len S. Anthony  
General Counsel – Progress Energy Carolinas

LSA/dhs  
Enclosures  
45612

c: John Flitter (ORS)

February 2008

The following units had no off-line outages during the month of February:

Brunswick Unit 1

Brunswick Unit 2

Harris Unit 1

Robinson Unit 2

Mayo Unit 1

Roxboro Unit 2

Full Forced Outage

- A. Duration: The unit was taken out of service at 11:20 on February 27, and returned to service at 21:26 on February 27, a duration of 10 hours and 6 minutes.
- B. Cause: Generator Lock Out
- C. Explanation: The unit was forced offline due to a generator lock out which resulted from the loss of power to a voltage regulator.
- D. Corrective Action: Repairs were made to restore power to the voltage regulator, and the unit was returned to service.

Roxboro Unit 3

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 23:15 on February 1, and returned to service at 6:18 on February 2, a duration of 7 hours and 3 minutes.
- B. Cause: Replacement of 480-Volt Circuit Breaker
- C. Explanation: The unit was taken out of service to replace a 480-Volt circuit breaker.
- D. Corrective Action: Maintenance activities were completed to replace the circuit breaker in a timely manner, and the unit was returned to service.

Roxboro 4

Full Forced Outage

- A. Duration: The unit was taken out of service at 22:24 on February 24, and returned to service at 5:39 on February 26, a duration of 31 hours and 15 minutes.
- B. Cause: Hydrogen Leak
- C. Explanation: The unit was forced offline due to a hydrogen leak on the generator.
- D. Corrective Action: Maintenance activities were conducted to correct the hydrogen leak, and the unit was returned to service.

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 8:20 on February 26, and returned to service at 9:58 on February 26, a duration of 1 hour and 38 minutes.
- B. Cause: Generator Voltage Regulator
- C. Explanation: The unit was taken offline to conduct preventative maintenance and testing on the generator voltage regulator.
- D. Corrective Action: Preventative maintenance and testing activities were completed on the voltage regulator, and the unit was returned to service.

	Month of February 2008		Twelve Month Summary		See Notes*
MDC	938 MW		938 MW		1
Period Hours	696 HOURS		8,784 HOURS		
Net Generation	649,397 MWH		7,873,063 MWH		2
Capacity Factor	99.47 %		95.55 %		
Equivalent Availability	99.98 %		93.54 %		
Output Factor	99.47 %		100.95 %		
Heat Rate	10,471 BTU/KWH		10,375 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	326,159	3.96	3
Partial Scheduled	92	0.01	52,010	0.63	4
Full Forced	0	0.00	114,389	1.39	5
Partial Forced	3,328	0.51	42,769	0.52	6
Economic Dispatch	31	0.00	31	0.00	7
Possible MWH	652,848		8,239,392		8

\* See 'Notes for Nuclear Units' filed with the January 2008 report.

\*\* Gross of Power Agency

	Month of February 2008		Twelve Month Summary		See Notes*
MDC	937 MW		937 MW		1
Period Hours	696 HOURS		8,784 HOURS		
Net Generation	662,926 MWH		7,174,327 MWH		2
Capacity Factor	101.65 %		87.17 %		
Equivalent Availability	100.00 %		86.40 %		
Output Factor	101.65 %		99.78 %		
Heat Rate	10,464 BTU/KWH		10,545 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	1,040,570	12.64	3
Partial Scheduled	0	0.00	79,010	0.96	4
Full Forced	0	0.00	0	0.00	5
Partial Forced	13	0.00	4,899	0.06	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	652,152		8,230,608		8

\* See 'Notes for Nuclear Units' filed with the January 2008 report.

\*\* Gross of Power Agency

	Month of February 2008		Twelve Month Summary		See Notes*
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MDC	900 MW		900 MW		1
Period Hours	696 HOURS		8,784 HOURS		
Net Generation	644,233 MWH		7,421,616 MWH		2
Capacity Factor	102.85 %		93.88 %		
Equivalent Availability	100.00 %		92.96 %		
Output Factor	102.85 %		100.55 %		
Heat Rate	10,690 BTU/KWH		10,847 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
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Full Scheduled	0	0.00	523,410	6.62	3
Partial Scheduled	0	0.00	7,901	0.10	4
Full Forced	0	0.00	1,320	0.02	5
Partial Forced	0	0.00	66,157	0.84	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	626,400		7,905,600		8

\* See 'Notes for Nuclear Units' filed with the January 2008 report.

\*\* Gross of Power Agency

	Month of February 2008		Twelve Month Summary		See Notes*
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MDC	710 MW		710 MW		1
Period Hours	696 HOURS		8,784 HOURS		
Net Generation	528,053 MWH		5,762,251 MWH		2
Capacity Factor	106.86 %		92.39 %		
Equivalent Availability	100.00 %		88.61 %		
Output Factor	106.86 %		103.39 %		
Heat Rate	10,508 BTU/KWH		10,796 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
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Full Scheduled	0	0.00	628,586	10.08	3
Partial Scheduled	0	0.00	16,784	0.27	4
Full Forced	0	0.00	34,707	0.56	5
Partial Forced	0	0.00	24,164	0.39	6
Economic Dispatch	0	0.00	9,775	0.16	7
Possible MWH	494,160		6,236,640		8

\* See 'Notes for Nuclear Units' filed with the January 2008 report.



	Month of February 2008		Twelve Month Summary		See Notes*
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MDC	741 MW		741 MW		1
Period Hours	696 HOURS		8,784 HOURS		
Net Generation	351,869 MWH		4,806,169 MWH		2
Capacity Factor	68.23 %		73.84 %		
Equivalent Availability	98.01 %		94.04 %		
Output Factor	68.23 %		76.83 %		
Heat Rate	10,616 BTU/KWH		10,359 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
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Full Scheduled	0	0.00	253,706	3.90	3
Partial Scheduled	154	0.03	94,992	1.46	4
Full Forced	0	0.00	0	0.00	5
Partial Forced	10,114	1.96	39,237	0.60	6
Economic Dispatch	153,599	29.78	1,314,841	20.20	7
Possible MWH	515,736		6,508,944		8

\* See 'Notes for Fossil Units' filed with the January 2008 report.

\*\* Gross of Power Agency

	Month of February 2008		Twelve Month Summary		See Notes*
MDC	639 MW		639 MW		1
Period Hours	696 HOURS		8,784 HOURS		
Net Generation	413,777 MWH		4,665,608 MWH		2
Capacity Factor	93.04 %		83.12 %		
Equivalent Availability	97.63 %		87.16 %		
Output Factor	94.41 %		93.23 %		
Heat Rate	9,116 BTU/KWH		9,135 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	546,419	9.73	3
Partial Scheduled	0	0.00	91,976	1.64	4
Full Forced	6,454	1.45	62,334	1.11	5
Partial Forced	4,067	0.91	19,721	0.35	6
Economic Dispatch	20,446	4.60	239,427	4.27	7
Possible MWH	444,744		5,612,976		8

\* See 'Notes for Fossil Units' filed with the January 2008 report.

	Month of February 2008		Twelve Month Summary		See Notes*
MDC	705 MW		705 MW		1
Period Hours	696 HOURS		8,784 HOURS		
Net Generation	342,674 MWH		4,511,770 MWH		2
Capacity Factor	69.84 %		72.86 %		
Equivalent Availability	91.22 %		93.06 %		
Output Factor	70.55 %		75.76 %		
Heat Rate	10,964 BTU/KWH		11,183 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	4,970	1.01	109,522	1.77	3
Partial Scheduled	27,551	5.61	109,013	1.76	4
Full Forced	0	0.00	102,613	1.66	5
Partial Forced	10,562	2.15	108,829	1.76	6
Economic Dispatch	104,922	21.38	1,250,973	20.20	7
Possible MWH	490,680		6,192,720		8

\* See 'Notes for Fossil Units' filed with the January 2008 report.

	Month of February 2008		Twelve Month Summary		See Notes*
MDC	698 MW		698 MW		1
Period Hours	696 HOURS		8,784 HOURS		
Net Generation	271,529 MWH		3,792,518 MWH		2
Capacity Factor	55.89 %		61.86 %		
Equivalent Availability	76.50 %		82.68 %		
Output Factor	58.66 %		71.67 %		
Heat Rate	10,777 BTU/KWH		10,591 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	1,140	0.23	805,433	13.14	3
Partial Scheduled	49,244	10.14	169,940	2.77	4
Full Forced	21,813	4.49	21,813	0.36	5
Partial Forced	41,955	8.64	64,842	1.06	6
Economic Dispatch	100,128	20.61	1,274,415	20.79	7
Possible MWH	485,808		6,131,232		8

\* See 'Notes for Fossil Units' filed with the January 2008 report.

\*\* Gross of Power Agency

Plant	Unit	Current MW Rating	January 2007 - December 2007	February 2008	January 2008 - February 2008
Asheville	1	197	63.64	79.86	81.58
Asheville	2	186	73.17	70.51	78.16
Cape Fear	5	144	78.67	77.97	80.62
Cape Fear	6	173	72.38	67.75	69.61
Lee	1	77	62.15	70.55	68.83
Lee	2	77	62.47	51.91	56.69
Lee	3	252	66.38	0.00	0.26
Mayo	1	741	72.10	68.23	73.17
Robinson	1	180	74.63	91.42	81.91
Roxboro	1	383	78.01	84.28	79.64
Roxboro	2	639	80.06	93.04	96.19
Roxboro	3	705	74.37	69.84	73.00
Roxboro	4	698	62.40	55.89	67.62
Sutton	1	97	56.26	44.17	50.91
Sutton	2	106	63.19	57.19	63.61
Sutton	3	403	55.53	62.10	74.48
Weatherspoon	1	49	53.86	37.42	47.01
Weatherspoon	2	49	55.68	51.75	50.19
Weatherspoon	3	79	68.70	67.77	74.17
Fossil System Total		5,235	69.82	67.48	71.81
Brunswick	1	938	95.92	99.47	100.92
Brunswick	2	937	86.99	101.65	101.40
Harris	1	900	93.90	102.85	103.12
Robinson Nuclear	2	710	92.26	106.86	106.86
Nuclear System Total		3,485	92.25	102.43	102.83
Total System		8,720	78.79	81.45	84.20

Amended SC Fuel Rule  
Related to Nuclear Operations

There shall be a rebuttable presumption that an electrical utility made every reasonable effort to minimize cost associated with the operation of its nuclear generation system if the utility achieved a net capacity factor of  $\geq 92.5\%$  during the 12 month period under review. For the test period April 1, 2007 through February 29, 2008, actual period to date performance is summarized below:

Period to Date: April 1, 2007 to February 29, 2008

Nuclear System Capacity Factor Calculation (Based on net generation)

A.. Nuclear system actual generation for SCPSC test period                      A = 26,240,325 MWH

B. Total number of hours during SCPSC test period                                      B =            8,041 hours

C. Nuclear system MDC during SCPSC test period (see page 2)                      C =            3,485 MW

D. Reasonable nuclear system reductions (see page 2)                                  D =    2,255,782 MWH

A. SC Fuel Case nuclear system capacity factor:  $[(A + D) / (B + C)] * 100 = 101.7\%$

NOTE:

If Line Item E  $> 92.5\%$ , presumption of utility's minimum cost of operation.

If Line Item E  $< 92.5\%$ , utility has burden of proof of reasonable operations.

Amended SC Fuel Rule  
Nuclear System Capacity Factor Calculation  
Reasonable Nuclear System Reductions  
Period to Date: April 1, 2007 to February 29, 2008

Nuclear Unit Name and Designation	BNP Unit # 1	BNP Unit # 2	HNP Unit # 1	RNP Unit # 2	Nuclear System
Unit MDC	938 MW	937 MW	900 MW	710 MW	3,485 MW
Reasonable refueling outage time (MWH)	0	392,521	480,210	628,587	
Reasonable maintenance, repair, and equipment replacement outage time (MWH)	492,066	20,139	75,776	34,707	
Reasonable coast down power reductions (MWH)	0	0	0	6,195	
Reasonable power ascension power reductions (MWH)	31,774	32,350	0	22,063	
Prudent NRC required testing outages (MWH)	6,273	18,469	456	0	
SCPSC identified outages not directly under utility control (MWH)	0	0	0	0	
Acts of Nature reductions (MWH)	0	0	0	14,196	
Reasonable nuclear reduction due to low system load (MWH)	0	0	0	0	
Unit total excluded MWH	530,113	463,479	556,442	705,748	
Total reasonable outage time exclusions [carry to Page 1, Line D]					2,255,782